## SIGNIFICANT PERMIT REVISION NO. 43749 TO PERMIT NO. 28161

## El Paso Natural Gas Company (EPNG) - Seligman Compressor Station

## SIGNIFICANT PERMIT REVISION DESCRIPTION

This Significant Permit Revision No. 43749 to Operating Permit No. 28161 issued to El Paso Natural Gas Company (EPNG) - Seligman Compressor Station incorporates a facility-wide nitrogen oxides ( $NO_x$ ) emission limit below the Prevention of Significant Deterioration (PSD) threshold. Additionally, the permit revision stipulates a monitoring strategy for EPNG to track compliance with the above mentioned voluntary limitation.

This significant revision will result in following changes to the Permit No. 28161:

## **Attachment B**

- 1. Conditions I.D, I.E and I.F are added to Section I of Attachment B of Permit No. 28161:
  - I. FACILITY WIDE REQUIREMENTS
    - D. <u>Total combined emissions of NO<sub>X</sub> from the GE turbine, the Solar turbine, and the auxiliary generator shall not exceed 225 tons per year, calculated monthly on a rolling 12-month total.</u> [A.A.C. R18-2-306.01, -306.02, and -331.A.3.a] [Material permit conditions are identified by underlines and italics]
    - E. Within 10 (ten) days of the end of each month, the Permittee shall calculate the total emissions for the previous month by adding the emissions calculated under Condition II.C.2.c(1)iii for the GE turbine, Condition II.C.2.c(2) for the auxiliary generator and Condition II.D.1.c(3) for the Solar turbine. [A.A.C. R18-2-306.A.3.c]
    - F. Using the monthly total NO<sub>x</sub> emissions from Condition E above, the Permittee shall calculate and maintain records of rolling 12-month combined emissions from the GE turbine, the Solar turbine and the auxiliary generator.

[A.A.C. R18-2-306.A.3]

- 2. Condition II.C.2 of Attachment B of Permit No. 28161 is revised and shall read as:
  - II.C.2 Nitrogen Oxides
    - a. NO<sub>x</sub> Limitations
      - (1) The Permittee shall not allow  $NO_x$  emissions from the General Electric gas turbine engine to exceed 0.69 lb/MMBtu.

[A.A.C. R18-2-306.A.2, -306.01, and -331.A.3.a] [Material permit conditions are identified by underlines and italics]

(2) The Permittee shall not allow  $NO_x$  emissions from the auxiliary generator to exceed 7.3 lb/hr.

[A.A.C. R18-2-306.A.2, -306.01, -331.A.3.a, and Condition I.E.1 of Attachment "B" of Minor Revision 27427 to Operating Permit 1000158] [Material permit conditions are identified by underlines and italics]

- b. Testing Requirements
  - (1) The Permittee shall conduct performance tests semi-annually for NO<sub>x</sub> emissions from the GE turbine to determine compliance with the limit

specified in Condition II.C.2.a(1) above. EPA Reference Method 20 shall be used to determine NO<sub>x</sub> emissions.

[A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-312]

(2) The Permittee shall conduct a performance test for NO<sub>x</sub> emissions from the auxiliary generator once per permit term to determine compliance with the limit specified in Condition II.C.2.a(2) above.

[A.A.C. R18-2-306.A.3.c]

- (3) The Permittee may submit an alternate and equivalent test method(s) that is listed in 40 CFR Subpart 60, Appendix A to the Director in any test plan for approval by the Director. [A.A.C. R18-2-312.B]
- c. Monitoring, Record Keeping and Reporting Requirements
  - (1) GE Turbine
    - i. <u>The Permittee shall install, calibrate, maintain, and operate fuel</u> <u>flow meter for the GE turbine according to source-specific</u> maintenance instructions.

[A.A.C. R18-2-306.A.3, -306.02.C, and -331.A.3.a] [Material permit conditions are identified by underlines and italics]

ii. The Permittee shall maintain monthly records of natural gas consumption for the GE turbine.

[A.A.C. R18-2-306.A.3 and -306.02.C]

- iii. Within 10 (ten) days of the end of each month, the Permittee shall calculate the NO<sub>x</sub> emissions from the GE turbine for the previous month using the natural gas consumption for that month, heating value of the fuel gas, and emission factor of 0.69 lb/MMBtu. [A.A.C. R18-2-306.A.3, and -306.02.C]
- (2) Auxiliary Generator

Within 10 (ten) days of the end of each month, the Permittee shall calculate the  $NO_x$  emissions from the auxiliary generator for the previous month using the number of hours of operation in that month, and emission factor of 7.3 lb/hour. [A.A.C. R18-2-306.A.3 and -306.02.C]

d. Permit Shield

Compliance with the Conditions of this Part shall be deemed compliance with Condition I.E.1 of Attachment "B" of Minor Revision 27427 to Operating Permit 1000158.

[A.A.C. R18-2-325]

3. Condition II.D.1 of Attachment B of Permit No. 28161 is revised and shall read as:

II.D.1 Nitrogen Oxides

[40 CFR 60.332(a)(2) and 40 CFR 60.332(c)]

- a. Emission Limitation/Standard
  - (1) The Permittee shall not cause to be discharged into the atmosphere from the stack of the Solar turbine engine any gases which contain nitrogen oxide in excess of that calculated from the following equation:

$$STD = 0.0150 \frac{(14.4)}{Y} + F$$

where:

- $STD = allowable NO_x$  emissions (percent by volume at 15 percent oxygen and on a dry basis)
- Y =Manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.
- F =NO<sub>x</sub> emission allowance for fuel-bound nitrogen as defined in 40 CFR 60.332(a)(4).
- (2) The Permittee shall not allow NO<sub>x</sub> emissions from the Solar gas turbine engine to exceed 0.10 lb/MMBtu.

[A.A.C. R18-2-306.A.2, -306.01, and -331.A.3.a] [Material permit conditions are identified by underlines and italics]

b. Performance Testing Requirement

> The Permittee shall conduct performance tests semi-annually for NO<sub>x</sub> emissions from the Solar turbine to determine compliance with the limits specified in Condition II.D.1.a above. The Permittee shall follow the procedures outlined in 40 CFR 60.335 for this performance test. The Permittee shall use EPA Reference Method 20 to determine NO<sub>x</sub> emissions. [A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-312]

- Monitoring, Record Keeping and Reporting Requirements c.
  - The Permittee shall install, calibrate, maintain, and operate fuel flow (1) meter for the Solar turbine according to source-specific maintenance instructions. [A.A.C. R18-2-306.A.3, -306.02.C, and -331.A.3.a] [Material permit conditions are identified by underlines and italics]

- (2) The Permittee shall maintain monthly records of natural gas consumption for the Solar turbine. [A.A.C. R18-2-306.A.3 and -306.02.C]
- (3) Within 10 (ten) days of the end of each month, the Permittee shall calculate the NO<sub>x</sub> emissions from the Solar turbine for the previous month using the natural gas consumption for that month, heating value of the fuel gas, and emission factor of 0.10 lb/MMBtu.

[A.A.C. R18-2-306.A.3 and -306.02.C]

d. Permit Shield

> Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.332(a)(2) and 60.332(c). [A.A.C. R18-2-325]